

Firearms/Toolmarks Discipline Mission Statement, Administrative, and Operational Guidelines

1 Scope, Mission, Goals and Objectives

1.1 This document applies to personnel in the Firearms/Toolmarks Discipline (FTD).

The FBI Laboratory Firearms/Toolmarks Discipline consists of two units:

- Firearms/Toolmarks Unit (FTU)
 - Scientific Analysis Section
- Scientific & Biometrics Analysis Unit – Toolmark Group (SBAU-TG),
 - Terrorist Explosive Device Analytical Center (TEDAC) Section

1.2 FTU Mission

The FTU will apply valid scientific procedures to the forensic examinations of firearms, ammunition components, toolmarks, serial number restoration, gunshot residue (GSR) distance determination, shooting incident reconstruction (SIR), and other closely related physical evidence in support of the FBI and other law enforcement or government agencies. Additionally, the FTU will provide leadership to the forensic Firearms/Toolmarks community through training and research.

1.3 SBAU Mission

To conduct latent print, DNA, trace and toolmark analysis and related instrument operation support to provide actionable intelligence from Improvised Explosive Device (IED) materials to the United States Government and its partners in a continual effort to access, defeat, and counter the IED threat.

1.4 Goals and Objectives

The FTD quality assurance system operates in accordance with the quality practices established in the FBI Laboratory Quality Assurance Manual (QAM) and the FBI Laboratory Operations Manual (LOM). FTD personnel will follow the FBI Laboratory Division's policies regarding administrative matters, staffing, budget, job descriptions, duty hours, and leave time.

The goals and objectives of the FTD include:

- Conducting forensic examinations on firearm and toolmark evidence to support federal, state, local, and international law enforcement or other government agencies, to include evidence processing, report writing, and providing expert testimony.
- Providing information in support of law enforcement and the intelligence community.

- Collaborating with the intelligence community, other government agencies and foreign partners.
- Collaborating with other government agencies and institutions to investigate and support research needs for the FTD.

Additional goals of the FTU include:

- Conducting SIR examinations
- Supporting FBI related training efforts in fundamental of Firearms/Toolmarks Identification and SIR.

Additional goals of the SBAU-TG include:

- Providing pre-deployment briefings to federal and international law enforcement agencies, the intelligence community and military personnel regarding the forensic exploitation of IEDs.
- Supporting the TEDAC Scientific Outreach Program through the international deployment of forensic examiners.

2 Organization and Management Structure

2.1 The FTU consists of a Unit Chief (UC), Management and Program Analyst (MAPA), Supervisory Physical Scientist-Forensic Examiners (SPSFE), Physical Scientist-Forensic Examiners (PSFE), Physical Scientists/Non-Examiners (PSNE), an Office Service Specialist (OSS), and contract staff.

2.2 The SBAU-TG consists of a SPSFE, and PSFEs.

The duties and responsibilities of the FTD personnel are as follows:

2.3 Unit Chief

The UC functions as the head of the respective unit and is responsible for the overall coordination of case examinations, programs, budget, and liaison. The UC duties and responsibilities include:

2.3.1 Monitors casework performance measures to improve services to casework contributors, law enforcement, other government agencies, international partners and intelligence community partners.

2.3.2 Ensures compliance with current Laboratory Division (LD) policies, practices, and procedures.

2.3.3 Ensures that FTD procedures comply with FBI Laboratory QAM and LOM requirements, and that an annual review of applicable FTD controlled documents is performed as outlined in the *LOM - Practices for Document Control*.

2.3.4 Notifies the Quality Manager of significant conditions adverse to quality as outlined in the *LOM - Practices for Addressing a Nonconformity*.

2.3.5 Ensures that personnel comply with the applicable FBI Laboratory Health and Safety policies and practices.

2.3.6 Oversees the management and coordination of all administrative and technical programs within their respective unit.

2.3.7 Serves as a supervisor for SPSFEs and additional unit personnel.

2.3.8 Ensures that personnel are provided with opportunities for training and continuing education, as appropriate, and are qualified for their assigned work responsibilities.

2.3.9 The FTU and SBAU UCs will coordinate to designate a qualified Examiner to serve as the FTD Technical Leader (TL).

2.3.10 Assigns Examiners to case submissions and case records for each request for examination or ensures that appropriate personnel assign the cases.

2.3.11 Maintains liaison with law enforcement, other government agencies, foreign partners, and the intelligence community to enhance the attainment of unit performance measures.

2.3.12 Determines unit staffing level needs and prepares formal requests to fill vacancies.

2.3.13 Coordinates unit meetings to communicate administrative, safety and quality assurance matters, and other general interest matters that impact unit personnel and performance measures.

2.3.14 Ensures that all appropriate personnel review and sign the *Department of Justice Code of Professional Responsibility for the Practice of Forensic Science* on an annual basis.

2.3.14.1 Coordinates with personnel on the receipt and review of training that covers ethical practices in forensic science.

2.3.15 Ensures that all personnel with deployment responsibilities receive appropriate training, credentials and medical services for typical deployments.

2.3.16 Performs administrative reviews of *Laboratory Reports* or ensures that SPSFEs or PSFEs perform these reviews.

2.3.17 Assigns appropriate personnel in support of deployment operations, requests and briefings.

2.3.18 Ensures appropriate unit personnel serve as acting UC as necessary.

2.3.19 Monitors case production and case backlog or ensures that monitoring is completed by SPSFEs.

2.4 Supervisory Physical Scientist - Forensic Examiner

In addition to the duties described under PSFE in section 2.5, the SPSFE's responsibilities include:

2.4.1 Serves as front-line supervisor for assigned personnel. Monitors performance and conducts performance reviews for all assigned personnel.

2.4.2 Ensures, as budget permits, that PSFEs are afforded mission-related continuing education opportunities.

2.4.3 Evaluates the risks and merits of minor deviations of administrative nature and approves this type of minor deviation.

Additional SPSFE duties within SBAU-TG include:

2.4.4 Serves as primary authority in Toolmark Group for case assignment, administrative reviews of *Laboratory Reports*, and assignment of Toolmark Group personnel to Scientific Outreach Program requests.

2.5 Physical Scientist - Forensic Examiner

The PSFE duties and responsibilities include:

2.5.1 Complies with LD, discipline, and unit policies, practices, and procedures.

2.5.2 Participates in training, continuing education and development as required by the FBI Laboratory QAM.

2.5.3 Reviews and signs the *Department of Justice Code of Professional Responsibility for the Practice of Forensic Science* on an annual basis.

2.5.3.1 Ensures training is received for ethical practices in forensic science. For a recently hired PSFE trainee, this will be recorded in the training manual.

- 2.5.4** Participates in annual proficiency testing as outlined in the *LOM - Practices for Open Proficiency Testing* and FTD QAM – *Proficiency Testing*.
- 2.5.5** Examines evidence, issues *Laboratory Reports*, and testifies to examination results.
- 2.5.6** Ensures the integrity of the evidence is maintained for each requested examination.
- 2.5.7** Ensures the necessary communications and proper examinations have been performed as outlined in the *LOM - Practices for Assigning Cases and Conducting Examinations*.
- 2.5.8** Ensures that any supporting examination records are accounted for and properly labeled.
- 2.5.9** Serves as a Training Coordinator for PSFE trainees, when requested.
- 2.5.10** Performs administrative and technical reviews of casework, as authorized.
- 2.5.11** Serves as a testimony evaluator, as authorized by the UCs and Technical Leader.
- 2.5.12** When assigned, serves as acting UC and evaluates incoming casework and assigns cases to PSFEs.
- 2.5.13** Provides information regarding equipment needs, supplies and budget to the UC.

Additional PSFE duties within FTU include:

- 2.5.14** Collaborates with Training Division's Defensive Systems Unit (TD DSU) personnel on taking photographs, weights, and measurements of recovered FBI projectiles from Agent Involved Shootings (AIS). This information assists TD DSU in ongoing research, but case notes, identifiers, or examination results will not be provided to TD DSU.
- 2.5.15** Provides the FTU Chief awareness of their availability for rapid deployments.

Additional PSFE duties within SBAU-TG include:

- 2.5.16** Ensures that all necessary foreign travel safety training, medical screenings, vaccinations and passports are acquired and kept current, allowing for short-notice foreign temporary duty assignments.
- 2.5.17** Provides 24-hour availability.

2.6 Physical Scientist/Non-Examiner

The PSNE is responsible for assisting the PSFE in the examination and processing of evidence, as well as assisting with the planning and coordinating of forensic science related activities and programs. The PSNE duties and responsibilities include:

2.6.1 Complies with LD, discipline, and unit policies, practices, and procedures.

2.6.2 Reviews and signs the *Department of Justice Code of Professional Responsibility for the Practice of Forensic Science* on an annual basis.

2.6.2.1 Ensures training is received for ethical practices in forensic science. For a recently hired PSNE trainee, this will be recorded in the training manual.

2.6.3 Participates in a training, continuing education, and development program as required by the FBI Laboratory QAM.

2.6.4 Participates in annual proficiency testing as outlined in the LOM - *Practices for Open Proficiency Testing* and FTD QAM - *Proficiency Testing*.

2.6.5 Assists PSFEs with case examinations up to items undergoing microscopic comparison.

2.7 Management and Program Analyst

A MAPA is responsible for performing administrative tasks and supporting unit/program operations and projects. This can include casework metrics, contracts, procurements, property management, and budgetary matters such as developing cost estimates, purchase justifications, and monitoring the use of unit funds. A MAPA may also assist with unit time and attendance records, visitor notifications, administrative casework records, and travel arrangements made through the Travel Request Initiation and Payment (TRIP) system.

2.8 Office Service Specialist

The OSS is responsible for performing administrative tasks and supporting unit/program operations and projects.

2.9 Contractor

A contractor is employed on a contractual basis and may perform administrative or casework tasks like a PSFE or PSNE when working in the FTD. Contractors are required (if conducting casework) to meet the provisions of the FBI Laboratory quality system including successful completion of the appropriate training and proficiency testing program.

3 Programs and Representatives

3.1 Technical Leader

The Technical Leader (TL) is a designated PSFE who is accountable for the technical operations in the FTD and who is authorized to stop, suspend, and resume operations in that discipline. The TL duties and responsibilities include:

3.1.1 Evaluates and records approval of all analytical methods used within the FTD and proposes new or modified analytical procedures as appropriate.

3.1.2 Ensures the FTD is in conformance with applicable requirements for accreditation.

3.1.3 Ensures nonconformities are appropriately addressed and recorded.

3.1.4 Evaluates the risks and merits of a minor deviation that are technical in nature and approves this type of minor deviation.

3.1.5 Ensures technical personnel receive necessary training and are authorized for their assigned work.

3.1.6 Provides technical assistance to the UC(s) if they are not an SME.

3.1.7 Serves as an approving official for all FTD procedures and manuals.

3.1.8 Serves as a liaison between discipline personnel and the Research and Support Unit (RSU) and Laboratory Senior Level Scientists on projects involving FTD research.

3.1.9 Ensures appropriate updates and reviews are completed on entries made into the Research Review Team SharePoint site.

3.1.10 Ensures the continuity of technical operations between both locations of the FTD.

3.1.10.1 Continuity of technical operations will be achieved through technical and/or case file reviews. At a minimum, three case file reviews will be conducted per quarter, which will represent a variety of casework and examiners.

3.1.11 Provides guidance to the UCs regarding research needs within the FTD and provides guidance regarding the necessary procurement requirements to achieve success.

3.2 Training Program Manager

The FTD Training Program Manager (TPM) oversees training matters for all newly assigned personnel within the FTD. The TPM is responsible for periodic revisions of the FTD Training

Manual in coordination with the TL, Training Coordinators (TC), UCs, Quality Assurance Program Managers (QAPM) and Forensic Analysis Support Unit (FASU). The TPM is also responsible, in coordination with the FASU Forensic Examiner Training Program Manager, for the coordination of all FTD Examiner trainee oral boards and moot courts. The TPM duties and responsibilities include:

- 3.2.1** Administers and maintains a training program for PSFEs and PSNEs that identifies the requirements necessary for achieving qualification in each respective position.
- 3.2.2** Provides guidance regarding a logical and organized approach to completing all training requirements.
- 3.2.3** Coordinates the delivery and scoring of tests with the TL and TCs.
- 3.2.4** Ensures that casework is made available to trainees so that case notes and complete case evaluations can be made.
- 3.2.5** Coordinates with the TL and UCs to determine if modifications to the training program are appropriate for new trainees due to previous experience/training.
- 3.2.6** Provides the TL with any necessary information needed to compose a trainee's final qualification and authorization Electronic Communication.
- 3.2.7** Ensures that all PSFE trainee review forms are completed and maintained in the trainee's training records. As part of their PSFE training, trainees will complete examination notes which will be reviewed by a qualified PSFE and recorded on the *FTD Trainee Notes Review Form* (Appendix A). PSFE trainees will also complete casework examinations which will be reviewed by a qualified PSFE and recorded on the *FTD Casework Training Review Form* (Appendix B).
- 3.2.8** Ensures that training records are maintained at the trainee's location.
- 3.2.9** Ensures that newly qualified PSFEs have their first 10 cases reviewed by a GS-14 PSFE qualified in the applicable category of testing. This includes the review of all technical and administrative records, handling of evidence, and verification of all comparison results.
- 3.2.10** Ensures that any deficiencies in a newly qualified PSFE's examinations are recorded on the *FTD Internal Case Review Form* (Appendix C), and any necessary additional training is provided within the category of testing in question. If a scientific or technical disagreement occurs during the case evaluation phase, the *LOM - Practices for Resolution of Scientific or Technical Disagreement* will be followed.

3.2.11 Ensures training is provided for ethical practices in forensic science and that trainees review *The Application of Ethical Practices in Forensic Sciences* PowerPoint which is available in Virtual Academy.

The following Program Manager/Representative/Administrator roles are PSFEs and/or PSs who coordinate and are responsible for specified unit programs in addition to the assigned duties listed above.

3.3 Quality Assurance Program Managers

The QAPMs oversee quality assurance matters that affect their respective units. Each QAPM ensures compliance with current LD policies, practices and procedures. Additionally, the QAPMs ensure compliance with FTD quality documents. The QAPM duties and responsibilities include:

3.3.1 Coordinates with UCs, TL, and other QAPM within the FTD to ensure that the applicable FTD QAM, Technical Procedures, and Training Manuals are reviewed annually and revised when necessary.

3.3.1.1 Serves as the Quality Assurance Representative for the respective units.

3.3.2 Assists in assembling records for internal audits.

3.3.3 Ensures applicable quality documents follow the *LOM - Practices for Document Control*.

3.3.4 Ensures quality assurance continuity between both locations of the FTD.

3.3.5 Ensures unit-specific nonconformities follow the *LOM - Practices for Addressing a Nonconformity*, to include maintaining the unit concession/correction log.

3.3.6 Ensures unit-specific controlled documents are maintained, updated, and reviewed in compliance with the *LOM - Practices for Document Control*.

3.4 Proficiency Test Representatives

The FTD Proficiency Test Representatives (PTRs) are responsible for administering proficiency tests in their respective units in accordance with the *FTD QAM - Proficiency Testing*. The PTR's duties and responsibilities include:

3.4.1 Ensures compliance with the responsibilities for the unit PTR as outlined in the *LOM - Practices for Open Proficiency Testing*.

3.4.2 Maintains proficiency test records (physical and/or within Forensic Advantage) in the respective unit as outlined in the *LOM - Practices for Open Proficiency Testing* and *FTD QAM - Proficiency Testing*.

3.4.3 Maintains completed proficiency test samples.

Additional Programs within the FTU include:

3.5 Calibration and Maintenance Administrator

The Calibration and Maintenance Administrator (CMA) is responsible for coordinating the necessary calibration, maintenance, and performance checks on equipment used in the FTU. The CMA duties and responsibilities include:

3.5.1 Ensures that all equipment used for examination in the FTU is labeled, properly maintained, calibrated, and in compliance with the *LOM - Practices for the Calibration and Maintenance of Equipment*.

3.5.2 Ensures that information captured in Resource Manager is updated and binders containing maintenance and performance checks are maintained.

3.6 Intelligence Program Manager

The Intelligence Program Manager (IPM) is responsible for the FTU knowledge base regarding military weapons. The IPM will provide guidance regarding the reporting and tracking of FTU intelligence. The duties and responsibilities of the IPM include:

3.6.1 Ensures a working knowledge of the operation and firing of common military and foreign small arms to include crew-served weapon systems. Training and familiarity will be maintained through public and government training sources.

3.6.2 Maintains liaison with military and government agencies specializing in weapon and intelligence programs.

3.6.3 Provides training to FBI personnel and other government agencies regarding program subject material(s).

3.6.4 Maintains records and ensures compliance with FBI Laboratory Intelligence Program(s) and expanded Science & Technology Branch (STB) Intelligence initiative(s).

3.7 General Rifling Characteristics File Program Manager

The General Rifling Characteristics File Program Manager (GRCPM) oversees the General Rifling Characteristics (GRC) program, which involves the collection and analysis of test-fired

bullets and cartridge cases for entry into the internationally distributed GRC database. The duties and responsibilities of the GRCPM include:

3.7.1 Receives test fired items, verifies measurements, marks individual items, enters the information into the database, and retains those items as outlined in the *FTU Technical Procedure - General Rifling Characteristics Database Entries and Searches*.

3.7.2 Ensures the GRC database is published on a regular basis and distributed to national/international forensic laboratories and law enforcement agencies.

3.7.3 Responds to queries from the field, performs searches, updates the database, and performs software updates as required.

3.7.4 Ensures the necessary GRC instrument performance checks are conducted on a routine basis and recorded in an organized manner.

3.8 National Integrated Ballistic Information Network Program Manager

The National Integrated Ballistic Information Network Program Manager (NIBINPM) oversees the maintenance and operation of the FTU NIBIN system. The duties and responsibilities of the NIBINPM include:

3.8.1 Receives Expedited NIBIN (ENIBIN) cases, performs inventory of submitted items, test fires the submitted items, and enters the test fired specimens in the NIBIN system as outlined in the *FTU Technical Procedure - Individual Characteristic's Database Searches* and *FTU QAM - Procedures for the Expedited National Integrated Ballistics Information Network (ENIBIN)*. The ENIBIN program will maintain a one-month turnaround time for these types of submissions.

3.8.2 Provides and/or coordinates NIBIN training for new users through the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF).

3.8.3 Maintains records regarding the verification check and maintenance of the Matchpoint[®] and Brasstrax[®] systems.

3.9 Operational Response Program Manager

The Operational Response Program Manager (ORPM) is responsible for equipping, maintaining and conducting an inventory of all FTU deployment needs, to include kits, equipment, and FTU response vehicles. In addition, the ORPM will coordinate with the Evidence Response Team Unit (ERTU) and Technical Hazards Response Unit (THRU) for training and provide instruction during any FTU sponsored SIR courses.

3.10 Reference Ammunition File Program Manager

The Reference Ammunition File Program Manager (RAFPM) oversees the Reference Ammunition File (RAF) program, which involves the acquisition, documentation, and filing of ammunition specimens in the RAF database for use in FTU case examinations. The RAFPM provides guidance to maximize the FTU resources for the acquisition of new samples. Examples are decisions about brands, calibers, and amounts of ammunition to purchase, which ammunition types to dispose of, and the organizational structure of ammunition storage. These decisions require knowledge of trends in firearms and ammunition manufacturing, trends regarding the submission of firearms and ammunition in casework, and direct knowledge of which types of ammunition are most useful for conducting forensic examinations of firearms and ammunition. The duties and responsibilities of the RAFPM also include:

3.10.1 Purchases and receives ammunition for entry into the RAF and for use in conducting forensic casework.

3.10.2 Ensures the RAF database is kept up-to-date and maintained. At a minimum, the bullet type, caliber, jacket material, cartridge case material, and the manufacturer will be included with each entry.

3.10.3 Prepares specimens for the RAF by dismantling and packaging the components in the standard RAF containers. Each container will be assigned an identifier for inclusion into the RAF database.

3.10.4 Researches, identifies, and obtains new ammunition not previously included in the RAF.

3.11 Reference Firearms Collection Program Manager

The Reference Firearms Collection Program Manager (RFCPM) is responsible for coordinating the acquisition of firearms for the Reference Firearm Collection (RFC). The RFCPM will use their experience as a PSFE to identify which models and types of firearms will provide maximum benefit to the mission of the FTU. The RFCPM will attempt to develop communication with the military and other government agencies to facilitate the acquisition of firearms of forensic value for inclusion in the RFC. The duties and responsibilities of the RFCPM also include:

3.11.1 Responds to queries from the field.

3.11.2 Ensures an identifier is assigned to each firearm entered into the RFC. At a minimum, the caliber, make, model, type of weapon, serial number (if present), and FBI Case Identifier will be included with each entry.

3.11.3 Ensures the RFC is kept up-to-date and maintained.

3.11.4 Conducts periodic inventories of the RFC. This inventory will be recorded via email to the FTU Chief.

3.11.5 Purchases and receives firearms and firearm components deemed essential to operations and casework when not obtained through the Firearms Disposition Program. Also, provides purchasing information to the FTU MAPA for entry into the Asset Management System (AMS).

3.11.6 Maintains and ensures FTU Disposition firearms are properly stored.

3.11.7 Organizes and manages destruction of disposition firearms.

3.12 FTU Instrument Specialist

The FTU Instrument Specialist (IS) is responsible for evaluating instruments used for 3D toolmark topography acquisition and analysis for firearm and toolmark examinations. The duties and responsibilities of the FTU IS also include:

3.12.1 Assists with validations, uncertainty of measurement calculations, development of control charts, calibrations and maintenance performed on instruments being used for casework.

3.12.2 Ensures reference standards and research specimens are properly maintained and catalogued.

3.12.3 Assists with training users and serves as a proctor for any validation or competency tests involving a new instrument.

3.12.4 Ensures records and data supporting validation and instrument performance are properly organized and maintained for review.

Additional Program within the SBAU-TG:

3.13 SBAU Toolmark Group Instrument Program Manager

The Toolmark Group Instrument Program Manager (TGIPM) is responsible for evaluating instruments used for toolmark imaging and topography acquisition to determine best uses for toolmark examinations within the SBAU for counter-IED purposes. The duties and responsibilities of the TGIPM include:

3.13.1 Works with the FTD TL to ensure that all necessary validations, development of control charts, uncertainty of measurement calculations, calibrations and maintenance are performed on instruments being used for casework in the Toolmark Group.

3.13.2 Assists with the procurement of maintenance contracts for Toolmark Group instruments.

3.14 SBAU Proficiency Testing, Classification, Additive Manufacturing, and Outreach Program Manager

The SBAU Proficiency Testing, Classification, Additive Manufacturing, and Outreach Program Manager duties and responsibilities include:

3.14.1 Within the trace and toolmark disciplines, ensures compliance with the requirements for proficiency testing as outlined in the *LOM - Practices for Open Proficiency Testing*, maintains proficiency test records (physical and/or within Forensic Advantage) in the SBAU as outlined in the *LOM - Practices for Open Proficiency Testing* and *FTD QAM - Proficiency Testing*. **3.14.2** Advises SBAU on classification matters and takes part in the Laboratory Division's Classification Working Group.

3.14.3 Monitors Additive Manufacturing (AM) technologies, collaborates with entities both within the FBI and in the external Intelligence Community on matters related to AM and AM-related threats.

3.14.4 Collaborates with other TEDAC units and external partners to provide information about the SBAU mission, exploitation methods, and deployment capabilities.

4 Continuing Education

Continuing education and training are identified as courses, instruction, on the job training, web-based training, and professional conferences/seminars which assist personnel in meeting the mission of the FTD. Training received by FTD personnel will be recorded in the FBI Virtual Academy under "My Training Records".their

5 Security

5.1 FTD personnel will follow the FBI Laboratory QAM and the security procedures set out in the *Security Reference Guide (SRG) for Laboratory Division Personnel*. These documents can be found on the LD intranet website.

5.2 FTU personnel have unrestricted access to all FTU Laboratory areas by means of a Security Access Control System (SACS) badge and/or assigned FTU-specific keys. SBAU-TG personnel have access to discipline-specific Laboratory areas by means of a SACS badge.

5.3 FTD personnel will ensure that any visitor under their care is always escorted while in the laboratory. When a visitor needs access to evidence storage rooms, they must sign the visitor's log located near the door.

5.4 All FTD examination areas must be locked when the space is unoccupied.

6 Document Control

FTD personnel will follow the *LOM - Practices for Document Control* when preparing controlled documents. It is the end user's responsibility to ensure that any uncontrolled document being used is the current, most recent revision.

7 Retention of Records and Evaluations

7.1 All proficiency test records, as outlined in the *LOM - Practices for Open Proficiency Testing*, will be retained permanently in the FTU or SBAU, and/or within FA.

7.2 Concession and correction records including annual reviews, as outlined in the *LOM - Practices for Addressing a Nonconformity* are retained in the FTU and SBAU for one accreditation cycle or five years, whichever is longer.

7.3 Minor deviation records including annual reviews, as outlined in the *LOM - Practices for Authorizing Deviations* are retained in the FTU and SBAU for one accreditation cycle or five years, whichever is longer.

7.4 Court Testimony Monitoring records are retained as outlined in the *LOM - Practices for Testimony Related Activities*.

7.5 Continuing education records are maintained electronically in Virtual Academy and/or on the TCAF.

8 Validation

All new or novel methods and instrumentation intended for use during analysis by FTD personnel will be validated in accordance with the *LOM - Practices for Developing Methods and Validating Technical Procedures*, and *FTD QAM - Development and Validation of New Technical Procedures*. Such validation testing will be completed and approved by the TL prior to the implementation of the procedural modification. All developmental validation, internal validation, or material modification records will be retained in the FTU and SBAU, as appropriate.

9 Technical Procedures

All technical procedures produced by FTD personnel will be prepared in accordance with the *LOM - Practices for Writing Technical Procedures* and *LOM - Practices for Document Control*.

10 Proficiency Testing

Open proficiency testing will be used to monitor the performance of PSFEs and other authorized FTD casework personnel. Proficiency tests will be administered in accordance with the *LOM - Practices for Open Proficiency Testing* and *FTD QAM - Proficiency Testing*.

11 Safety

Not Applicable.

12 References

FBI Laboratory Quality Assurance Manual, latest revision

FBI Laboratory Operations Manual, latest revision

FBI Laboratory Safety Manual, latest revision.

Rev #	Issue Date	History
11	03/02/20	Revised to align SAU references with SBAU reorganization. Truncated Section 2.2 to include only FTD personnel at TEDAC. Updated multiple sections for grammar and clarity. Details regarding firearms safety from Section 13 was moved to <i>FTD SOP Firearm Examinations</i> . Appendix E titled <i>FTU Safety Protocols for the Handling of Firearms and Ammunition</i> was removed and incorporated into <i>FTD SOP Firearm Examinations</i> .
12	04/15/21	In Sections 2.3.14, 2.5.3, 2.6.2 removed requirement for annual review of <i>ANAB Guiding Principles of Professional Responsibility for Forensic Service Providers and Forensic Personnel</i> ; Sections 2.5.17 and 3.7 were reformatted for spacing; Sections 3.3.1, 3.7.1, and 9, replaced Standard Operating Procedures, or SOPs with Technical Procedures; Section 11.1 edited to read “Abbreviations and notations may be used in the FTD examination records provided they are clearly recorded and/or readily comprehensible to the reviewer.” Grammatical edits made to Sections 3.1.6 and 3.11; Section 3.14 added; Section 4, removed requirement for Training Course Evaluation Form; Section 11 Abbreviations, Discovery Requests, and Requests for Quality System Documents removed; Section 12, Court Testimony Review removed. Renumbered last two sections. Updated references.

Approval

Redacted - Signatures on File

Firearms/Toolmarks
 Acting Unit Chief

Date: 04/15/2021

Scientific & Biometrics
 Analysis Unit Chief

Date: 04/15/2021

Firearms/Toolmarks
 Technical Leader

Date: 04/15/2021

QA Approval

Quality Manager

Date: 04/15/2021

Appendix A: *FTD Trainee Notes Review Form*

Redacted - Form on File

Appendix B: *FTD Casework Training Review Form*

Redacted - Form on File

Appendix B: *FTD Casework Training Review Form* continued

Redacted - Form on File

Appendix C: *FTD Internal Case Review Form*

Redacted - Form on File